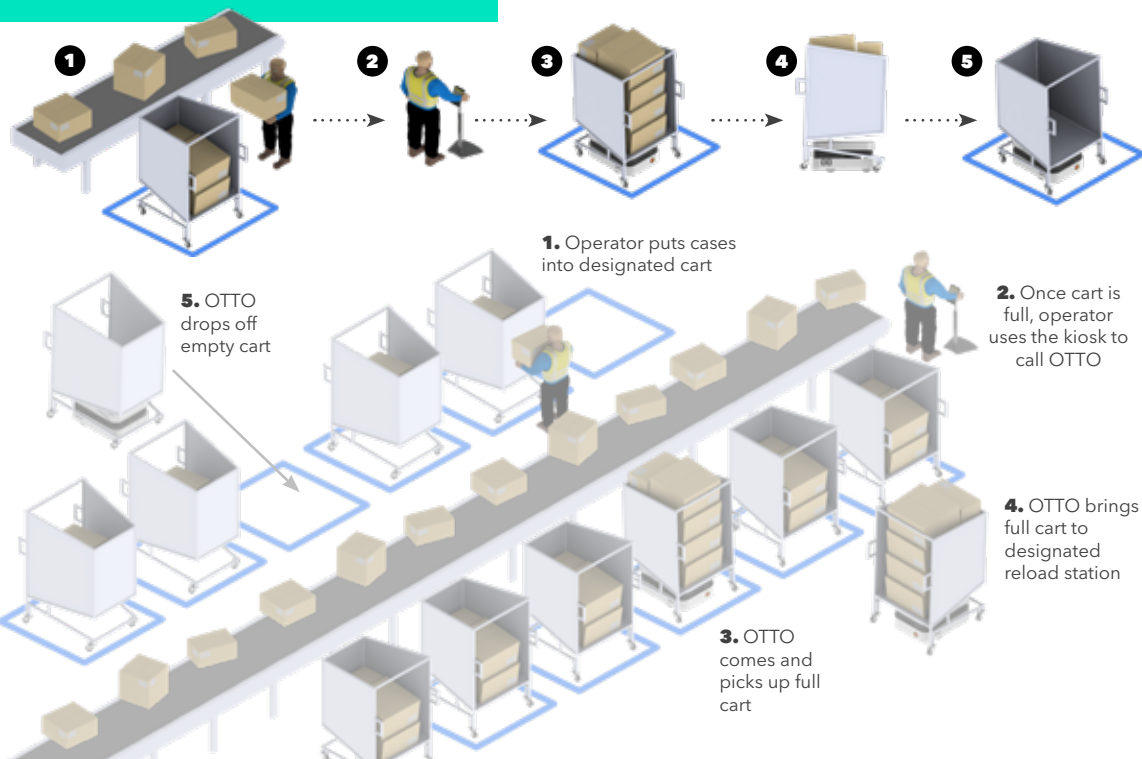


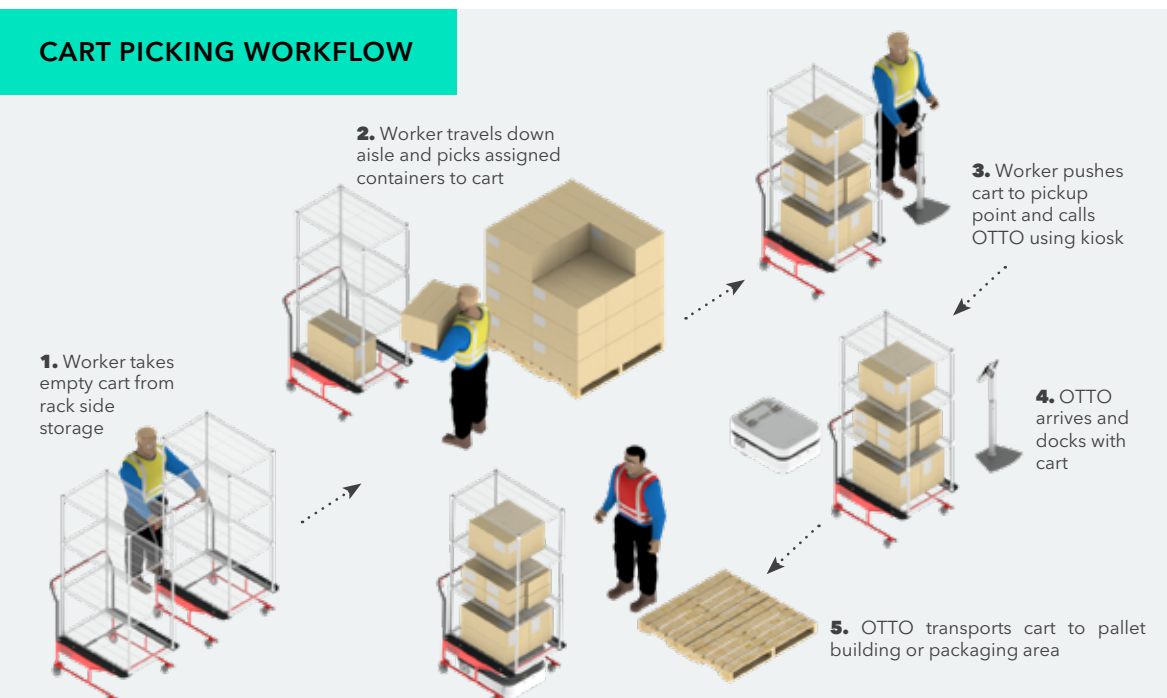
Automate Workflows in Your Facility

The OTTO 100 is an industrial strength Autonomous Mobile Robot (AMR) that safely moves boxes, bins, carts and other lightweight payloads to increase materials handling throughput in factories and warehouses.

UNLOAD STATION WORKFLOW



CART PICKING WORKFLOW



REDUCE COSTS

OTTO reduces time wasted and variability with manual material handling by operating on a lean approach.



ADDRESS LABOR SHORTAGE

At up to 10% the cost of an FTE, OTTO AMRs enable businesses to address labor shortage and eliminate FTE spend on low value and repetitive work.



ACHIEVE ENTERPRISE SCALE

Unlike other AMR providers, OTTO Motors' customers are able to operate at scale with 1 to 100 robots to optimize productivity.



OPTIMIZE PRODUCTION

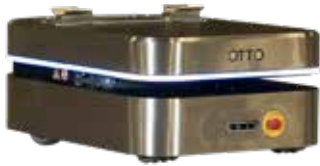
OTTO enables flexibility in materials handling and faster product cycles that can ramp up and down based on demand.



IMPROVE SAFETY

OTTO Motors AMRs are uncompromising when it comes to safety.

Technical Specifications



OTTO 100 v2.5

OTTO 100 is an industrial strength Autonomous Mobile Robot (AMR) that safely moves boxes, bins, carts and other payloads up to 150 kg to increase material handling throughput in factories and warehouses.

PERFORMANCE

Max. Capacity	150 kg (331 lbs) Includes payload, attachments and cart, if any	Max. Turning Speed	1.25 rad/sec (75°/sec)
Max. Speed	2.0 m/sec (4.5 mph)	Max. Docking Speed	0.3 m/sec (0.7 mph)
Docking Accuracy Standard	± 10mm (x,y), ± 1°φ (yaw) Repeatable to 3σ	Min. Aisle Width (One Way)	1099 mm (43 in)
Docking Accuracy Precision Upgrade ¹	± 5mm (x,y), ± 1°φ (yaw) Repeatable to 3σ	Min. Aisle Width (Two Way)	1975 mm (78 in)
		Integrated Lift	62 mm (2.44 in) stroke, 150 kg capacity

CHASSIS

Dimensions	740 x 550 x 308mm (29.1 x 21.7 x 12.1 in)	Suspension	Fixed, rigid
Mass	107 kg (236 lbs)	Ground Clearance	6 mm (0.25 in)
Turning Radius	Turn in place	Traversable Gap	13 mm (0.5 in)

ENERGY SYSTEM

Battery Capacity	35 Ah	Battery Voltage	26.4 V
Runtime (10% to 90%)	6 hr	Battery Life	10,000 full charge cycles
Max. Charge Rate	98 A	Battery Charging Options	Autonomous Opportunity Charging (Default) Manual Charging
Charge Time (10% to 90%)	18 mins		

SAFETY SYSTEM

E-Stop	2 E-Stops (front and back) + user E-Stop circuit interface	Standards Compliance	ISO 12100, ISO 13849-1, ISO 3691-4, ANSI/RIA 15.08-1, ANSI/ITSDF B56.5 FCC Part 15 Subpart B, ICES-003, ICES-002
Manual Control	Guided autonomous control available via OTTO software interface.		

AUTOMATION INTERFACE

Power Interface	26.4 VDC, 12A max, unregulated
Signal Interface	1x Ethernet, 1x USB 3.0, 1x serial RS-232
Safety Interface	2x E-stop extension, 8x Digital IO, 2x dry contact relays, 1x Auxiliary Monitor Contact

CONTROL SYSTEM

Sensors	Hokuyo Safety Laser Scanner, 3D Camera with 90° front coverage, ToF rear sensor with 90° reverse coverage Inductive cart detect sensor
Communication	WiFi 2.4 / 5 GHz (802.11 a/b/g/n/ac)

ACCESSORIES (Sold Separately)

Load-Handling	Staging Cart (Capacity: 130 kg) Magnetic Line Follower
Charging	Autonomous Supercharger (98 A) Manual Trickle Charger (25 A)

ENVIRONMENTAL

IP Classification	IP20
Temperature	20° to 40° C
Max. Humidity	95%, non-condensing

Footnotes:

¹ Requires OTTO High Accuracy Docking System (HADS) upgrade, sold separately

For more information visit www.ottomotors.com
or call us toll-free at **1-844-733-6886**